

Patent Abstracts of Japan

PUBLICATION NUMBER : 07006867  
PUBLICATION DATE : 10-01-95

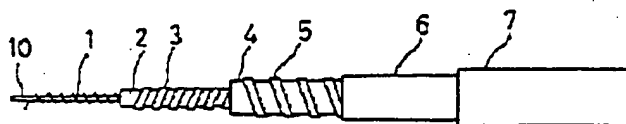
APPLICATION DATE : 14-12-93  
APPLICATION NUMBER : 05343111

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INT.CL. : H05B 3/56 H01C 7/04 H05B 3/00

TITLE : MELTING TYPE TRIPLE CONTROL  
ONE LINE TYPE INSULATING HEATER  
WIRE



ABSTRACT : PURPOSE: To prevent abnormal heating by arranging a P resistance conductor to detect an abnormal heating temperature, an internal insulator melted at the abnormal heating temperature and an NTC semiconductor which covers an internal conductor and detects a preset heating temperature.

CONSTITUTION: An NTC semiconductor 4 acts on a temperature of an internal conductor 3, and flows a thermistor electric current, and turns on and off electric power supply of the conductor 3 according to the electric current quantity, and holds a constant temperature. When a temperature cannot be controlled by the semiconductor 4 due to trouble or the like, the temperature is controlled by a P resistance conductor 1 being the second temperature sensor. Since this conductor 1 exists on both ends of an insulating heating wire, an abnormal high temperature is generated between them, and when the conductor 1 becomes a prescribed temperature or more, since resistance is increased suddenly, an abnormal heating temperature can be detected reliably. When it becomes the abnormal temperature detectable by the conductor 1, an internal insulator 2 is melted, and the conductor 1 and the conductor 3 are short-circuited to each other. A short circuit current is generated, and an electric power supply fuse is gone, so that heating of the conductor 3 is stopped.

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